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NEW YORK, NY 10036

EXAMINER

DEVITO, ALEX T

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2856

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

klpatent@kramerlevin.com

DETAILED ACTION

This Office Action is in response to the Applicant's communication filed on December 28, 2009. In virtue of this communication, claims 1 and 3-15 are currently presented in the instant application.

Claim Objections

1. Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The examiner would like to further clarify why he finds claim 6 to be improper. Imagine that the examiner indicated 6 as having allowable subject matter and indicated that the applicant should rewrite claim 6 as an independent claim to overcome this objection. The allowable claim would be :

“A method for detecting a defect or failure of a compressed air load circuit in a vehicle compressed air system, in which pressure in lines to said compressed air load circuits is continuously monitored, said method comprising the steps of: momentarily shutting off at least one compressed air load circuit; at least one of measuring values and determining gradients of a variable of state in said compressed air system while said at least one compressed air load circuit is momentarily shut off; comparing at least one of said values and gradients with a predefined respective threshold value; and detecting at least one of a defective and failed one of said at least one compressed air load circuit

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when one of said values and gradients drops below said predefined respective threshold value at least one of during and after said at least one compressed air load circuit is momentarily shut off and permanently shutting off said at least one of a defective and failed one of said at least one compressed air load circuit further comprising the step of canceling shutoff of non- defective and non-failed ones of said at least one compressed air load circuits after permanent shutoff of said at least one of a defective and failed one of said at least one compressed air load circuits."

This claim would be improper as it starts off claiming "at least one compressed air load circuits" and ends with necessitating that two exist. Two acceptable ways to overcome this objection would be to amend claim 1 have two or more compressed air load circuits, or by making claim 6 only occur in the instances where there are two or more compressed air load circuits. In either case "at least one" implies an alternative equal to one or two or three..etc. In cases of the alternative, the examiner only need find one example of such in the prior art. Finding a prior art with a single compressed air load circuit would satisfy claim 1.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1 and 4-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Leiber (U.S. Patent No. 4,484,784).

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With respect to Claim 1, Leiber discloses a method for detecting a defect or failure of a compressed air load circuit in a vehicle compressed air system, in which pressure in lines to said compressed air load circuits is continuously monitored, said method comprising the steps of: momentarily shutting off at least one compressed air load circuit (column 2, lines 29-39); at least one of measuring values and determining gradients of a variable of state in said compressed air system while said at least one compressed air load circuit is momentarily shut off (column 2, lines 45-55); comparing at least one of said values and gradients with a predefined respective threshold value [p1] (column 3, lines 61-68); and detecting at least one of a defective and failed one of said at least one compressed air load circuit when one of said values and gradients drops below said predefined respective threshold value at least one of during and after said at least one compressed air load circuit is momentarily shut off (column 4, lines 37-45) and permanently shutting off said at least one of a defective and failed one of said at least one compressed air load circuit. The examiner finds that the prior arts use of "blocked off" without any indication to reopen would qualify as necessarily permanent, or at least as permanent as desired. However, if the applicant disagrees, than the examiner finds that it would be within the preview of one having ordinary skill in the art at the time of the invention to leave the failed circuit closed to prevent unnecessary waste of compressed air.

With respect to Claim 3, Leiber discloses the method according to claim 1, wherein said step of momentarily shutting off said at least one compressed air load circuit is effected a predefined number of discrete times in succession (note column 3,

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line 38 the use of test cycle indicated that the process is done more than once. The cycle must necessarily be completed a number of times in succession).

With respect to Claim 4, Leiber discloses the method according to claim 3, further comprising the steps of tracking said values and gradients while said at least one compressed air load circuit is pulsed off, and permanently shutting off ones of said at least one compressed air load circuits when one of said values and gradients is below said respective threshold value even after said step of momentarily shutting off said at least one compressed air load circuit is effected a predefined number of discrete times in succession (column 4, lines 37-45 and note aforementioned discussion on permanently).

With respect to Claim 5, Leiber discloses the method according to claim 1, further comprising the step of refilling non-defective and non- failed ones of said at least one compressed air load circuits after said step of permanently shutting off said at least one of defective and failed compressed air load circuits is effected (column 4, lines 19-24).

With respect to Claim 6, Leiber discloses the method according to claim 1, further comprising the step of canceling shutoff of non- defective and non-failed ones of said at least one compressed air load circuits after permanent shutoff of said at least one of a defective and failed one of said at least one compressed air load circuits (Column 4, lines 37-45 and note that the canceling appears non-necessary as it is impossible to carry out in the case of a single air load circuit).

With respect to Claim 7, Leiber discloses the method according to claim 1, wherein said predefined respective threshold value corresponds to a variable of state to

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be adjusted in said at least one compressed air load circuit (p1 represents pressure which is adjusted in the system, column 3, lines 64-68).

4. Claims 8-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Leiber (U.S. Patent No. 4,484,784) in view of Bosch (EP 0477519).

With respect to Claim 8, Leiber discloses a system for detecting a defect or failure of a compressed air load circuit in a vehicle comprising a compressed air supply part [2] and a compressed air consumer part, said compressed air consumer part including a plurality of compressed air load circuits [3,4], electrically actuatable valves [12-15], for supplying compressed air to said compressed air load circuits, sensors [24-27] for monitoring pressure in said compressed air load circuits, and an electronic control unit [28] for evaluating electrical signals from said sensors and for controlling said electrically actuatable valves, wherein said electrically actuatable valves associated with said load circuits are switchable momentarily by said control unit to a shut-off state for detecting at least one of a defect and failure of one of said compressed air load circuits, and wherein said control unit is adapted to compares at least one of measured values and determined gradients of a variable of state obtained during said shut-off state with a predefined respective threshold value to identify at least one of said compressed air circuits having at least one of said values and gradients below said threshold value as at least one of a defective and failed compressed air load circuit

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(column 3, lines 61-68). Leiber does not specifically disclose that said compressed air supply part including a compressor.

Bosch discloses that the compressed air supply part includes a compressor [21]. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a compressor for a compressed air supply part as taught by Bosch as the compressor is an art recognized equivalent.

With respect to Claim 9, the combination of Leiber and Bosch disclose the system according to claim 8, wherein said control unit is adapted to leave an electrically actuatable valve associated with said at least one of defective and failed compressed air load circuit in said shut-off state, and wherein electrically actuatable valves of non-defective and non-failed ones of said compressed air load circuits are switchable to an open normal state (column 4, lines 37-45).

With respect to Claim 10, the combination of Leiber and Bosch disclose the system according to claim 8 wherein said control unit is adapted to effect shutoff phases by briefly pulsing at least one electrically actuatable valve of said compressed air load circuits to shut-off state multiple times in succession (note the use of cycle in column 3, lines 38 of Leiber indicating multiple times in succession).

With respect to Claim 11, the combination of Leiber and Bosch disclose the system according to claim 10, wherein said control unit is adapted to determine said at least one of values and gradients during said shutoff phases and, after completion of a predefined number of shutoff phases, to detect ones of said compressed air load circuits having at least one of said values and gradients below said respective threshold

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value as at least one of defective and failed circuits and to permanently turn off said at least one of defective and failed circuits (see Leiber, column 4, lines 37-45 and note the aforementioned discussion on permanently).

With respect to Claim 12, the combination of Leiber and Bosch disclose the system according to claim 11, wherein said control unit is adapted to switch electrically actuatable valves of non-defective and non-failed ones of said compressed air load circuits back to an open de-energized normal state (see Leiber, column 4, lines 37-45 and note the phrase “again triggable”).

With respect to Claim 13, the combination of Leiber and Bosch disclose the system according to claim 11, wherein said non-defective and non-failed ones of said compressed air load circuits are refilled after said electrically actuatable valves have been switched to an open de-energized normal state (see Leiber, column 4, lines 37-45 and note the phrase “again triggable”. Also the examiner is unclear how this differs from claim 12 as an open valve in a pressurized line would necessarily refill the line after opening).

With respect to Claim 14, the combination of Leiber and Bosch disclose the system according to claim 8, wherein said threshold value corresponds to a value of said variable of state to be adjusted in said load circuit (note Leiber’s P1 is a pressure).

With respect to Claim 15, the combination of Leiber and Bosch disclose the system according to claim 8, but does not specifically disclose that said electrically actuatable valves are solenoid valves. However, the examiner finds that solenoid

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valves are well known examples of electrically actuatable valves and thus this difference does not define the application over the prior art.

Response to Arguments

5. Applicant's arguments filed 12/28/09 have been fully considered but they are not persuasive. The examiner finds that the selections quoted by the applicant, column 3, lines 24-30, do indeed indicate that valves are switchable to "reduce, maintain or once again increase the pressure". However this is not germane to later testing the valves (column 4, lines 29-36) and upon finding the failing of a brake circuit, modulating the valves to block off a defective circuit (column 4, lines 40-45). Column 1, lines 16-24 also indicate that failed circuits are blocked off and a warning is given to the operator. The examiner does not find it reasonable to interpret the prior art as reopening failed circuits after warning the operator of their failure as it would defeat the purpose of closing the failed circuit in the first place. If the applicant finds the examiner in error, the examiner strongly suggest calling the examiner at the number listed below before filing an after final amendment or an appeal for the benefit of expediting prosecution.

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX DEVITO whose telephone number is (571)270-7551. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 5712722208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2856

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